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## <u>Abstract</u>

A routing switch includes a first router module having N1 signal input terminals, M1 signal output terminals, an expansion input terminal and an expansion output terminal and including a core for routing a signal received at any one of the N1 signal input terminals selectively to any one or more of the output terminals and for routing a signal received at the expansion input terminal selectively to any one or more of the N1 signal output terminals. The router further includes a second router module having N2 signal input terminals, M2 signal output terminals, an expansion input terminal and an expansion output terminal and including a core for routing a signal received at any one of the N2 signal input terminals selectively to any one or more of the output terminals and for routing a signal received at the expansion input terminal selectively to any one or more of the M2 signal output terminals. The expansion output terminal of the first router module is connected to the expansion input terminal of the second router module and the expansion output terminal of the second router module is connected to the expansion input terminal of the first router module.